

## ABSTRACT

A system and method for controlling operations in a cellular system is disclosed.

A serving cell or the mobile telephone switching office (MTSO) determines that a portable wireless device operating in a serving cell needs to be handed off (a "handoff"). The position of the portable wireless device is determined. The position may be determined based on any of a variety of localization techniques, such as time difference of arrival (TDOA), angle of arrival (AOA), location pattern matching (LPM), global positioning system (GPS), or other localization techniques. A target cell is selected based on the position of the portable wireless device. Generally, the target cell is selected as the cell that is closest to the portable wireless device. Factors such as a position vector and/or a velocity vector may be assessed in selecting the target cell. Based on the target cell that is selected, the MTSO assigns the portable wireless device to the target cell and the transmission is handed off to the new cell.

15 Document #: 1126252 v.2